

Mineral Industry Surveys

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VANADIUM IN SEPTEMBER 2002

According to Metal Bulletin, the range for U.S. ferrovanadium prices narrowed during September to \$4.55 to \$5.00 per pound of vanadium content, compared with \$4.50 to \$5.15 in August. The range for European ferrovanadium prices in September was \$7.30 to \$8.40 per kilogram of vanadium content. In August, European ferrovanadium ranged from \$8.00 to \$8.65 per kilogram of vanadium content. In September, vanadium pentoxide prices ranged from \$1.35 to \$1.65 per

pound. U.S. prices for ferrovanadium narrowed during September, and European prices weakened. Industry observers attributed the movement primarily to a drop in orders as opposed to a lack of material (Ryan's Notes, 2002).

Reference Cited

Ryan's Notes, 2002, [untitled]: Ryan's Notes, v. 8, no. 38, September 23, p. 4.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM 1/

(Kilograms, contained vanadium)

	2001 p/		2002			
			August		September	
	Consumption	Stocks	Consumption r/	Stocks r/	Consumption	Stocks
Ferrovanadium 2/	2,800,000	245,000	229,000	254,000	241,000	245,000
Vanadium-aluminum alloy	W	10,500	W	8,670	W	8,990
Other 3/	484,000	7,910	29,900	6,840	23,600	6,840
Total	3,280,000	264,000	259,000	270,000	265,000	260,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

3/ Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE 1/

(Kilograms, contained vanadium)

	2001 p/	2002		
		August	September	Year to date
Steel:				
Carbon	997,000	69,900 r/	80,800	662,000
High-strength low-alloy	769,000	W	W	W
Stainless and heat-resisting	26,300	W	W	W
Full alloy	701,000	64,600 r/	66,800	572,000
Tool	261,000	18,400	18,900	203,000
Total steel	2,750,000	226,000 r/	239,000	2,080,000
Superalloys	16,000	1,640 r/	826	10,600
Miscellaneous and unspecified 2/	514,000	31,900 r/	25,200	306,000
Total consumption	3,280,000	259,000 r/	265,000	2,400,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Total steel."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP 1/

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2001	10,100	\$45,100	50,000	\$639,000
2002:				
June	19,500	33,100	283	55,100
July	--	--	18,400	256,000
August:				
Germany	--	--	3,320	191,000
Russia	--	--	1,030	68,200
Total	--	--	4,350	259,000
Year to date	76,400	170,000	26,100	770,000
Exports:				
2001	363,000	6,990,000	26,300	380,000
2002:				
June	34,600	1,010,000	6,280	67,100
July	23,600	647,000	10	5,490
August:				
Canada	10,800	317,000	--	--
Germany	--	--	1,170	12,100
Hong Kong	4,350	96,600	--	--
Japan	27,300	370,000	--	--
Mexico	1,400	30,900	--	--
Singapore	178	5,230	--	--
Taiwan	420	5,540	--	--
Total	44,500	825,000	1,170	12,100
Year to date	359,000	8,010,000	15,600	533,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM 1/

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) 2/		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2001	2,550,000	\$20,500,000	600,000	\$3,460,000	1,080,000	\$510,000
2002:						
June	222,000	1,690,000	--	--	16,000	150,000
July	206,000	1,640,000	70,800	373,000	--	--
August:						
Austria	30,200	290,000	--	--	--	--
Belgium	16,300	148,000	--	--	--	--
Canada	72,300	629,000	--	--	--	--
Czech Republic	218,000	1,740,000	--	--	--	--
South Africa	--	--	10,300	48,100	--	--
Trinidad and Tobago	--	--	--	--	4,690	79,400
Total	337,000	2,800,000	10,300	48,100	4,690	79,400
Year to date	1,830,000	13,300,000	263,000	1,240,000	42,200	542,000

See footnotes at end of table.

TABLE 4--Continued
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM 1/

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) 2/		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Exports:						
2001	70,000	\$768,000	71,400	\$407,000	63,000	\$562,000
2002:						
June	1,600	50,100	1,170	13,400	5,390	55,100
July	70,000	364,000	1,040	8,970	15,500	170,000
August:						
Canada	--	--	--	--	4,660	47,900
Mexico	19,200	206,000	--	--	--	--
Spain	--	--	11,300	52,300	--	--
Trinidad and Tobago	--	--	--	--	--	--
Total	19,200	206,000	11,300	52,300	4,660	47,900
Year to date	107,000	1,130,000	42,900	241,000	144,000	1,060,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG 1/

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity	Value
2001	1,980,000	\$2,270,000	1,980,000	\$1,290,000	998,000	\$1,170,000
2002:						
June	--	--	348,000	161,000	--	--
July	--	--	230,000	167,000	--	--
August:						
Canada	--	--	158,000	118,000	--	--
United Kingdom	--	--	41,800	53,900	--	--
Total	--	--	200,000	172,000	--	--
Year to date	--	--	1,680,000	974,000	--	--

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS 1/

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2001	--	--	102,000	\$623,000
2002:				
June	7,890	\$212,000	--	--
July	1,580	42,400	41	3,750
August:				
Germany	--	--	185	10,800
South Africa	--	--	6,260	53,600
Total	--	--	6,440	64,400
Year to date	14,000	384,000	34,900	418,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.